

REMARKS

This responds to the Office Action dated on February 23, 2006.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-40 are now pending in this application with claims 1-4 currently pending examination. The amendments to the specification are fully supported by the specification as originally filed. No new matter is introduced. Applicant respectfully requests reconsideration of the above-identified application in view of the amendments above and the remarks that follow.

In the Specification

The specification is amended with the paragraphs beginning on page 3, line 10 – page 4, line 10 being deleted. The specification is amended with paragraphs inserted beginning on page 6, line 19. The inserted paragraphs are from the specification as originally filed beginning on page 3, line 12 – page 4, line 3. No new matter is introduced.

First §103 Rejection of the Claims

Claims 1-3 were rejected under 35 U.S.C. § 103(a) as being unpatentable over VanDover (U.S. Patent No. 6,093,944) in view of Scobey et al. (U.S. Patent No. 6,115,401). Applicant traverses these grounds of rejection of these claims.

Applicant cannot find in the combination of VanDover in view of Scobey et al. (hereafter Scobey) a teaching or suggestion of an electronic device with a dielectric layer containing a TiO_x layer doped with a lanthanide, where the TiO_x layer doped with the lanthanide has an oxygen content supplemented during formation of the TiO_x layer doped with the lanthanide by ion assisted electron beam evaporation as recited in claim 1. In the Office Action, it is stated that “[s]ince oxygen is a constituent of TiO_x, it is inherent that an oxygen content is supplemented during the formation process of the TiO_x layer doped with the lanthanide.” Applicant respectfully disagrees. Applicant notes that a TiO_x layer inherently has an oxygen content. However, the language of claim 1 reciting “an oxygen content supplemented” provides an additional structural feature that includes oxygen in excess to the oxygen content inherent in the TiO_x. Applicant cannot find in the combination of VanDover and Scobey a teaching or suggestion of a structure having oxygen in excess (supplemental to) the oxygen content in forming the TiO_x. Therefore, though Applicant does not agree with combining VanDover and

Scobey as proffered in the Office Action, Applicant submits that the proffered combination of VanDover and Scobey does not teach or suggest a TiO_x layer doped with the lanthanide having an oxygen content, as recited in claim 1. As a result, Applicant submits that VanDover in view of Scobey does not teach or suggest all the elements of claim 1 and that claim 1 is patentable over VanDover in view of Scobey.

Further, VanDover mentions various forms of a $\text{T}_{1-y}\text{M}_y\text{O}_x$ composition, where M is a lanthanide selected from neodymium (Nd), terbium (Tb), and dysprosium (Dy). The various forms may be a sputtered $\text{T}_{1-y}\text{M}_y\text{O}_x$ composition, a plasma-enhanced CVD $\text{T}_{1-y}\text{M}_y\text{O}_x$ composition, a laser ablated $\text{T}_{1-y}\text{M}_y\text{O}_x$ composition, and a reactive sputtered $\text{T}_{1-y}\text{M}_y\text{O}_x$ composition. *See VanDover, Summary and column 6, lines 59-64.* Scobey notes that in addition to structures using silica, niobia may be formed as an ion assisted electron beam evaporated niobia. *See Scobey, column 10, lines 55-60.* Applicant notes that niobia is an oxide containing niobium, Nb, which is not a lanthanide. Further, the limited reference to ion assisted electron beam evaporation in Scobey does not appear to address a doped metal oxide, such as a TiO_x layer doped with a lanthanide, structured by ion assisted electron beam evaporation. Since Scobey appears to lack a teaching or a suggestion regarding a doped metal oxide, such as a TiO_x layer doped with lanthanide, structured by ion assisted electron beam evaporation, Applicant submits that the combination of VanDover and Scobey as proposed in the Office Action is not proper. Therefore, Applicant submits that VanDover in view of Scobey does not teach or suggest all the elements of claim 1 and that claim 1 is patentable over VanDover in view of Scobey.

Claims 2 and 3 depend on claim 1. Therefore, Applicant submits that claims 2 and 3 are patentable over VanDover in view of Scobey for at least the reasons discussed herein with respect to claim 1.

Applicant respectfully requests withdrawal of these rejections of claims 1-3, and reconsideration and allowance of these claims.

Second §103 Rejection of the Claims

Claim 4 was rejected under 35 U.S.C. § 103(a) as being unpatentable over VanDover (U.S. Patent No. 6,093,944) in view of Scobey et al. (U.S. Patent No. 6,115,401) as applied to

claim 1 above, and further in view of Gardner et al. (U.S. Patent No. 6,225,168). Applicant traverses these grounds of rejection of these claims.

Applicant cannot find in VanDover in view of Scobey and further in view of Gardner et al. (hereafter Gardner) a teaching or suggestion of an electronic device with a dielectric layer containing a TiO_x layer doped with a lanthanide, where the TiO_x layer doped with the lanthanide has an oxygen content supplemented during formation of the TiO_x layer doped with the lanthanide by ion assisted electron beam evaporation as recited in claim 1. Applicant submits that Gardner does not cure the deficiencies of applying VanDover in view of Scobey to claim 1 as discussed above. Therefore, Applicant submits that claim 1 is patentable over VanDover in view of Scobey and further in view of Gardner for at least the reasons discussed above. Claim 4 depends on claim 1 and is patentable over VanDover in view of Scobey and further in view of Gardner for at least the reasons discussed above.

Applicant respectfully requests withdrawal of these rejections of claim 4, and reconsideration and allowance of this claim.

Withdrawn Claims

In the Restriction Requirement for the instant application mailed 21 March 2005, claim 1 was noted as being generic to the original claims. The withdrawn independent claims 5, 9, 13, 17, 25, 29, and 35 are maintained in line with the amendments to claim 1. With the allowance of claim 1, Applicant respectfully requests the rejoinder and allowance of claims 5-40. See *M.P.E.P.* 809 and *M.P.E.P.* 821.04.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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23 MAY 2006

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 23 day of May, 2006.

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